INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

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COUNTRY	East Germany		REPORT	
SUBJECT	VEB Werk fuer Fernmeldewe Production	sen WF	DATE DISTR.	29 September 19525X1
DATE OF INFO.			REQUIREMENT	
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	SOURCE EVALUATIONS ARE DEFINITI	VE. APPRAIS	AL OF CONTENT IS T	ENTATIVE.

1. Industrial television at the VEB Werk fuer Fernmeldewesen WF, Berlin-Oberschoeneweide, is still in the early experimental stages. Decimeter television transmitters (Dezifernsehsender) and receivers required for this purpose, utilizing a new type SL-382 tube which has an output of 120 kw in modulation, are being developed. The SL-382 is said to be similar to the Telefunken 354. Further new development includes the 47 cm long broadcast and television transmitter tube SRW-355, which is to supersede the SRW-357.

25X1

- 2. The following tubes are manufactured by the Werk WF:
 - a. Tubes for 10 kw television and ultrashort wave (UKW) transmitters in particular, the SLR-352.
 - b. Picture tubes.
 - c. Radar tubes for radio and modulating traffic are being developed, to meet requirements of VEB Funkwerk Koepenick and VEB Funkwerk Leipzig-Plagwitz. These radar tubes are not expected to be in production before the spring of 1956 at the earliest. They are designed for 500 and 1000 kw, and may also be adapted for color television. This is not yet envisaged, however, since, according to the plan, color television is not to be introduced before 1960. Glass envelopes for 19th picture tubes are ordered from the VEB Spezial-glaswerk "Einheit", Weisswasser, Strasse der Einheit 2-24.
- 3. The close associations of the Werk WF with the growth of the East German television net is illustrated by the fact that it furnished most of the equipment of the Television Center, Berlin-Adlershof, and a television laboratory transmitter located on the <u>Stadthaus</u>, East Berlin. The production of sixteen 10 kw TV transmitters is intended. Four of these have already been completed. The installation of these transmitters on Brocken/Harz, in Inselsberg, Stollberg, and Marlow, Mecklenburg, is well under way and they should be in operation in October 1955 at the latest. The decimeter link between Brocken and Inselsberg is completed; it runs via Petersberg near Leipzig. Another TV transmitter is to be installed on Katzenstein

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near Afalda in the Erzgebirge Mountains. Originally, the plant was to furnish the new TV transmitter for Mueggelberg near Berlin, but this order was given to the VEB Industriebau Berlin instead. The wave range of this transmitter is from 176 - 216 mcs. Including the control board (Steuerpult) and the butterfly wing antennas (Schmetterlingsflusgelantennen), each transmitter costs in the vicinity of 800,000 DME. All operate with a synchronizing signal. The spacing between the carrier frequencies is 6.5 mcs; this is reportedly to be changed to 5.5 mcs. 1

- 4. China has requested a bid on the supply of ten television transmitters, with and without ultrashort wave (UKW) transmitters combined.
- 5. The ratio of the number of sales of TV receivers to the output of the WF plant is very unsatisfactory; production by far exceeds sales. The USSR is no longer absorbing the output, and the East German consumer is still holding back. In order to increase the sale of TV sets, from now on a set may be purchased without the tax and TV repair shops have been established under the RFT Gerantiedienst, leipsig C 1, Hainstrasse 17. At the same time, the purchaser has been notified that temporarily he should not count on price reductions. The sales quota for the East Berlin area during 1955 is 650 sets.
- 6. The "Leningred I" and "Leningred II" TV sets have been almost completely superseded on the market by the FE 852 D 1 "Rembrandt", which has ten channels and an 11 inch tube. Series production of the FE 875 "Rubens" and the FT 55 "Sonata", the latter manufactured by the Firma Niemann, Halle, with an 18 x 24 cm picture, and experiments on a 21 inch tube are under way. The Ministry of General Machine Construction is also requiring the development of a 43 cm picture tube.
- Twenty-five
 7. Al 1.5 kw ultrashort wave (UKW) transmitters with a wave range of 78 102 mcs
 are being produced for domestic use and export to Poland and the USSR. These sets
 are to be constructed in cooperation with VEB Funkwerk Koepenick and VEB Sachsenwerk
 Radeberg. The WF plant is also to furnish a 10 kw amplifier for each set. Fourteen
 ultrashort wave transmitters are to be installed in East Germany; two, one on the
 Hochhaus Leipzig and the other in Rheinsberg, are already in operation. The others
 are to be located in Berlin Mauerstrasse, two in Brehm near Burg (Magdeburg),
 Brocken/Harz, in Inselsberg, Halle, Katzenstein, Marlow, Strelitz, Mueggelberg,
 and Wilsdruff. The Rheinsberg installation is a double ultrashort wave transmitter
 (Doppelte UKW-Senderanlage). A 250 watt ultrashort wave (UKW) transmitter, with
 the HF-2815 tetrode, has been completed and is to be placed on the export market.
- 8. Transmitter production has been facilitated with the acquisition of a dummy antenna (Kunst-Antenna) with a load resistance up to 10 kw, purchased for 18,000 DME from Rohde und Schwarz, Munich, and an ultrashort wave test transmitter with a range (Durchstimmbarkeit through audibility) of from 10 to 300 mcs.
- 9. Smallest transmitting and receiving stations, up to now only in the VEB Funkwerke Dresden and Leipzig-Plagwitz, are to be established in others for the use of the Association for Sport and Technology (Gesellschaft fuer Sport und Technik).
- 10. The Test Equipment Section of the plant produces oscillographs, transient analyzers (Impulsetrommesser), and Terzfilter .2
 - a. Technical specifications of the transient analyzer, type 06.95001.1, are as follows:

vertical	deflection	through	pulse	circuit	0.5	- 65	amps
(V	ertikalabler	akung dur	ch Im	oulsstrom)		

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	characteristic sheet in scale division (Kennlinienblatt in Sktl.), with three different sensitivities (three tubes)	
	relaxation time (Kippseit) from 6 mg to 2 mg in 8 coarse or fine controls	
	picture diameter - 70 mm	
	triggering frequency (Auslossefrequens) - 0 - 10 kcs	
	triggering voltage (Auslossespannung) - 1-100 volts positive/negative by external (Fremd) synchronization	
	triggering current (Ausloesestrom) - 0.5 amp positive/negative by internal (Eigen) synchronisation. This results either through pulse circuit or external triggering impulse.	
b.	Technical specifications for the <u>Terafilter</u> with a frequency range of 32 - 360 cps are as follows:	
	asymmetrical input resistance - approximately 600 Ohms	
	asymmetrical closed output - 600 Ohms	
	attenuation in the middle of each band width - approximately 0.7 nepers	
	+ 1 octave outside of the band middle - 5.0 nepers	
	+ 3 octaves outside of the band middle - 7.0 nepers	
	input level - + 0	
	band width of the two band groups shifted about 1/6 octave:	
	a. 32 to 40 to 50 to 64 - 256 to 320 cps b. 36 to 45 to 57 to 71 - 284 - 360 cps	
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	acing is to be changed from 5.5 mcs to 6.5 mcs to conform to Eastern Europe, ther than Western Europe, practices.	
des	Comment: Literally, third filters; these are probably low equency audio filters. Literature from the Leipzig Fair (spring 1955) scribes a test filter for acoustic measurements, which may be identical the device mentioned in this report.	25 X 1

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